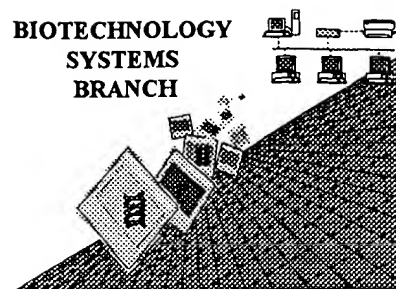


Stale

RAW SEQUENCE LISTING ERROR REPORT

BIOTECHNOLOGY
SYSTEMS
BRANCH



The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) detected errors when processing the following CRF diskette:

Application Serial Number: 09/105,117F

Art Unit / Team No. : 1653

Date Processed by STIC: 11/4/99

THE ATTACHED PRINTOUT EXPLAINS THE ERRORS DETECTED.

PLEASE BE SURE TO FORWARD THIS INFORMATION TO THE APPLICANTS BY EITHER:

- 1) INCLUDING A COPY OF THIS PRINTOUT IN YOUR NEXT COMMUNICATION TO THE APPLICANTS ALONG WITH A NOTICE TO COMPLY or,**
- 2) CALLING APPLICANTS AND FAXING THEM A COPY OF THE PRINTOUT WITH A NOTICE TO COMPLY**

THIS WILL INSURE THAT THE NEXT SUBMISSION RECEIVED FROM THEM WILL BE ERROR FREE.

IF YOU HAVE ANY FURTHER QUESTIONS, PLEASE CALL:

MARK SPENCER 703-308-4212

Raw Sequence Listing Error Summary

ERROR DETECTED SUGGESTED CORRECTION

SERIAL NUMBER:

09/105,117F

ATTN: NEW RULES CASES: PLEASE DISREGARD ENGLISH "ALPHA" HEADERS, WHICH WERE INSERTED BY PTO SOFTWARE

- 1 Wrapped Nucleics The number/text at the end of each line "wrapped" down to the next line.
This may occur if your file was retrieved in a word processor after creating it.
Please adjust your right margin to .3, as this will prevent "wrapping".
- 2 Wrapped Aminos The amino acid number/text at the end of each line "wrapped " down to the next line.
This may occur if your file was retrieved in a word processor after creating it.
Please adjust your right margin to .3, as this will prevent "wrapping".
- 3 Incorrect Line Length The rules require that a line not exceed 72 characters in length. This includes spaces.
- 4 Misaligned Amino Acid The numbering under each 5th amino acid is misaligned. This may be caused by the use of tabs
Numbering between the numbering. It is recommended to delete any tabs and use spacing between the numbers.
- 5 Non-ASCII This file was not saved in ASCII (DOS) text, as required by the Sequence Rules.
Please ensure your subsequent submission is saved in ASCII text so that it can be processed.
- 6 Variable Length Sequence(s) contain n's or Xaa's which represented more than one residue.
As per the rules, each n or Xaa can only represent a single residue.
Please present the maximum number of each residue having variable length and
indicate in the (ix) feature section that some may be missing.
- 7 PatentIn ver. 2.0 "bug" A "bug" in PatentIn version 2.0 has caused the <220>-<223> section to be missing from amino acid
sequence(s) . Normally, PatentIn would automatically generate this section from the
previously coded nucleic acid sequence. Please manually copy the relevant <220>-<223> section
to the subsequent amino acid sequence.
- 8 Skipped Sequences Sequence(s) missing. If intentional, please use the following format for each skipped sequence:
(OLD RULES) (2) INFORMATION FOR SEQ ID NO:X:
 (i) SEQUENCE CHARACTERISTICS:(Do not insert any headings under "SEQUENCE CHARACTERISTICS")
 (xi) SEQUENCE DESCRIPTION:SEQ ID NO:X:
 This sequence is intentionally skipped

Please also adjust the "(iii) NUMBER OF SEQUENCES:" response to include the skipped sequence(s).
- 9 Skipped Sequences Sequence(s) missing. If intentional, please use the following format for each skipped sequence.
(NEW RULES) <210> sequence id number
 <400> sequence id number
 000
- 10 Use of n's or Xaa's Use of n's and/or Xaa's have been detected in the Sequence Listing.
(NEW RULES) Use of <220> to <223> is MANDATORY if n's or Xaa's are present.
In <220> to <223> section, please explain location of n or Xaa, and which residue n or Xaa represents.
- 11 Use of <213>Organism Sequence(s) are missing this mandatory field or its response.
(NEW RULES)
- 12 Use of <220>Feature Sequence(s) are missing the <220>Feature and associated headings.
(NEW RULES) Use of <220> to <223> is MANDATORY if <213>ORGANISM is "Artificial" or "Unknown"
Please explain source of genetic material in <220> to <223> section.
(See "Federal Register," 6/01/98, Vol. 63, No. 104, pp. 29631-32) (Sec. 1.823 of new Rules)
- 13 PatentIn ver. 2.0 "bug" Please do not use "Copy to Disk" function of PatentIn version 2.0. This causes a corrupted
file, resulting in missing mandatory numeric identifiers and responses (as indicated on raw sequence listing).
Instead, please use "File Manager" or any other means to copy file to floppy disk.

Stoke
PAGE: 1RAW SEQUENCE LISTING
PATENT APPLICATION US/09/105,117FDATE: 11/04/1999
TIME: 15:34:10

Input Set: I105117F.RAW

This Raw Listing contains the General Information
Section and up to first 5 pages.Does Not Comply
Corrected Diskette Needed

1 <110> APPLICANT: Vrjic, Marina
 2 Eggeling, Lothar
 3 Sahm, Hermann
 4 <120> TITLE OF INVENTION: PROCESS FOR THE MICROBIAL PRODUCTION OF AMINO ACIDS BY
 5 BOOSTED ACTIVITY OF EXPORT CARRIERS
 6 <130> FILE REFERENCE: fj122 oct99
 7 <140> CURRENT APPLICATION NUMBER: US/09/105,117F
 8 <141> CURRENT FILING DATE: 1998-06-17
 9 <150> EARLIER APPLICATION NUMBER: PCT/DE96/02485
 10 <151> EARLIER FILING DATE: 1996-12-18
 11 <150> EARLIER APPLICATION NUMBER: 195 48 222.0
 12 <151> EARLIER FILING DATE: 1995-12-22
 13 <160> NUMBER OF SEQ ID NOS: 3
 14 <170> SOFTWARE: PatentIn Ver. 2.1
 15 <210> SEQ ID NO 1
 16 <211> LENGTH: 290
 17 <212> TYPE: PRT
 18 <213> ORGANISM: Corynebacterium glutamicum
 19 <400> SEQUENCE: 1
 20 Met Ala Pro Ile Gln Leu Asp Thr Leu Leu Ser Ile Ile Asp Glu Gly
 21 1 5 10 15
 22 Ser Phe Glu Gly Ala Ser Leu Ala Leu Ser Ile Ser Pro Ser Ala Val
 23 20 25 30
 24 Ser Gln Arg Val Lys Ala Leu Glu His His Val Gly Arg Val Leu Val
 25 35 40 45
 26 Ser Arg Thr Gln Pro Ala Lys Ala Thr Glu Ala Gly Glu Val Leu Val
 27 50 55 60
 28 Gln Ala Ala Arg Lys Met Val Leu Leu Gln Ala Glu Thr Lys Ala Gln
 29 65 70 75 80
 30 Leu Ser Gly Arg Leu Ala Glu Ile Pro Leu Thr Ile Ala Ile Ala Ala
 31 85 90 95
 32 Asp Ser Leu Ser Thr Trp Phe Pro Pro Val Phe Ala Glu Val Ala Ser
 33 100 105 110
 34 Trp Gly Gly Ala Thr Leu Thr Leu Arg Leu Glu Asp Glu Ala His Thr
 35 115 120 125
 36 Leu Ser Leu Leu Arg Arg Gly Asp Val Leu Gly Ala Val Thr Arg Glu
 37 130 135 140
 38 Ala Ala Pro Val Ala Gly Cys Glu Val Val Glu Leu Gly Thr Met Arg
 39 145 150 155 160
 40 His Leu Ala Ile Ala Thr Pro Ser Leu Arg Asp Ala Tyr Met Val Asp
 41 165 170 175
 42 Gly Lys Leu Asp Trp Ala Ala Met Pro Val Leu Arg Phe Gly Pro Lys
 43 180 185 190
 44 Asp Val Leu Gln Asp Arg Asp Leu Asp Gly Arg Val Asp Gly Pro Val

PAGE: 2

RAW SEQUENCE LISTING PATENT APPLICATION US/09/105,117F

DATE: 11/04/1999
TIME: 15:34:10

Input Set: I105117F.RAW

	195	200	205	
45	Gly Arg Arg Arg Val Ser Ile Val Pro Ser Ala Glu Gly Phe Gly Glu			
46	210	215	220	
47	Ala Ile Arg Arg Gly Leu Gly Trp Gly Leu Leu Pro Glu Thr Gln Ala			
48	225	230	235	240
49	Ala Pro Met Leu Lys Ala Gly Glu Val Ile Leu Leu Asp Glu Ile Pro			
50	245	250	255	
51	Ile Asp Thr Pro Met Tyr Trp Gln Arg Trp Arg Leu Glu Ser Arg Ser			
52	260	265	270	
53	Leu Ala Arg Leu Thr Asp Ala Val Val Asp Ala Ala Ile Glu Gly Leu			
54	275	280	285	
55	Arg Pro			
56	290			
57	<210> SEQ ID NO 2			
58	<211> LENGTH: 2990			
59	<212> TYPE: DNA			
60	<213> ORGANISM: Corynebacterium glutamicum			
61	<400> SEQUENCE: 2			
62	ggtaaacgac ttccacaatg agacggaccg ggtaaggac gcccgcttct tcactttttg 60			
63	ysgggacttg gaaaagtctt cattgattcc ggcgttaggg agctaacgac gtagttgctg 120			
64	ccgrgaadv acagacactc agatcgatct ctagatctaa ggtccgcggt agcaacgggt 180			
65	atgtagccac adtrasrsw rwymtcagtt acccatagag tagctcctcc tagtgaagag 240			
66	gacgaaaatc gtaccctcgt cgaacddvga kmaaccaaag cccttcttca ggggttggtt 300			
67	ccggagccgc ttaacggagt ggttttgga ggcgtgwgr raggagctgc cctgttacct 360			
68	atgcgcggac gcggggtgtc ctggtagctg cgcgggcagg tccagsvsr rrgvgdvrgd 420			
69	dtgccagaac ttcgtgtaga aaccctggct tcgcattctg cccgtagcgt cgggtagat 480			
70	crdvdkgvrm aawdaaggg tagttggtac atccgtaggg cgttactccc ccaacgttac 540			
71	cggttcaccg cgtakgdvmy adrstaahrm ccaagggttca agatgatgaa gtgtagggcg 600			
72	W--> 73 see item 10 gtgcccta at cgaagtgc cc aatggcgagg tgvcgavna rtvagatttt gtagaggtgc 660			
73	74 ggcgtcgttc ctattacaca cgcgaagtag aaggttcgcg tcgcavdgrr sthadrctc 720			
74	75 gcaacgaggt ggggttcttc gatggagcaa cttgtgccct ctttgggtac acctatctag 780			
75	W--> 76 gwsavnvwtg gcttagacgc aactaccgct accaattgcc ctaaagtcgt tccgcaggtc 840			
76	W--> 77 tatcaacgcg sdanatargs aaaatcaaag acgaacgtcg ttgtggtaaa aggcgcgacg 900			
77	78 aacgtgttcc tgaagtgggc gktavmkraa vvgaaagcca acgaaaccgg ccaaccacg 960			
78	79 cgctatggtt gtgagctggg tgcactacga gctctakatr svrgvvhhtc gaaattgcgc 1020			
79	80 gactgagtgg cggctcccc tttaccttcc cgcattcctc cgcggaagak vrsvasssas 1080			
80	81 agtabrcgsy sgcttcgacg gaagtagtta ctaactctcg tttcacaggt caacttacc 1140			
81	82 caagtatgcc ttcataatg attgagagca aagtgtccag ttgaatgggg ttcatagaag 1200			
82	W--> 83 This tsdstdnmr bsatattaaa ccattgtaag aaccaatcat tttacttaag tacttccata 1260			
83	84 ggtcacgatg gtmvysgatc atggaaatct tcattacagg tctgcttttg ggggccagtc 1320			
84	85 ttttactgtc catcggttg assgaccgca gaattgactg gtgattaaac aaggaattaa 1380			
85	W--> 86 ggcggaagga ctcatgctg ttctnvvkgy rgavtctcgt gtgtttaatt tctgacgtct 1440			
86	87 ttttggtcat cgccggcacc ttgggcgttg atctvcsdva gtgvdtttgt ccaatgccgc 1500			
87	W--> 88 ALL gccgatcgtg ctcatatta tgcgtgggg tggcatcgct tacctnaav dmrwggaygt 1560			
88	89 tatggtttgc cgtcatggca gcgaaagacg ccatgacaaa caaggtggaa gcgccacawa 1620			
89	W--> 90 vmaakdamtn kvagatcatt gaagaaacag aaccaaccgt gccgatgac acgccttttg 1680			
90	91 gcggttcggc ggtttvddtg gsavggccac tgacacgcgc aaccgggtgc ggggtggaggt 1740			
91	W--> 92 gagcgtcgat aagcagcggg tttgatdtrn rrvrvsvdkr vwggtaaagc ccatgttgat 1800			
92	W--> 93 ggcaatcgtg ctgacctggt tgaacccgaa tgcgtatttg gavkmmavtw nnaydcgcgt 1860			
93	94 ttgtgtttat cggcgcgctc ggcgcgcaat acggcgacac cggacggttg attttavggv 1920			

sample
of
error

recurring
throughout
the
sequence

at
beginning of line

PAGE: 3

RAW SEQUENCE LISTING
PATENT APPLICATION US/09/105,117F

DATE: 11/04/1999
TIME: 15:34:10

Input Set: I105117F.RAW

95 gaygdtgrwc gccgctggcg cgttcgcggc aagcctgac tggttccccg tgggtgggttt 1980
 96 cggcgagca agaaaswvvg aaagcattgt cagccccgt gtccagcccc aaggtgtggc 2040
 W--> 97 *see* gctggatcaa cgtcgtcgtg gcasrskvw rwnvvvatab rtgsttrnrt kctactggcg 2100
 98 *item 10* taaccggtag tttgactaca actacccaat caaaagcgcc caaaaagtgt tgatgaccgc 2160
 99 attggccatc aaactgatgt tgatgggtta gttttcgcgg gvvmtaakmm gysccttagc 2220
 100 caccggaagc ggggtttacaa ctacggccgc agcacccttt agagtagcta gcgsdtakaw 2280
 W--> 101 *or* ngadhsdaga gggtgagccg cagtcttttg aggttcaaca actcacttag ttccgacaac 2340
 W--> 102 *Erwin* aggtcgacad snnsdsndga gttgactgct tcgtgggttag ttacgtgacc agtgccatag 2400
 103 gcgcgcatg agaggaacvs sagastvtda gyggagcgcg tcgtgggttag gttcgcggta 2460
 104 *summary* gacgcgttca ctgacggcg caaggaccgc ctarvwaama sgracagtaa ctgcaacgcc 2520
 W--> 105 *sheet* tggatatagtt ataacaagt caagttgtac gggagtctgt ccctdnkrvm dnnvnmgssg 2580
 106 aatgggaccg accgcgcct tgggagacct taaggtagct ctataaacag gcactcgtck 2640
 107 gsarsggydk dtcgggacgc gttcaccact ctttcgttac tgcggttctg gtaacaaccg 2700
 W--> 108 *↓* tcgactgacg ttgasavgn naasgttcaa gaggggcagt agcgggcaaa ggaggtgggt 2760
 W--> 109 tgctaattac taccttatcg aaccngddgv wrnsysgact acttagtctt cgcccgctcg 2820
 110 gaggaggcgg tacttgagtc ggcggaggcg acactchcga maaatgagac ctggcatcct 2880
 111 tctttatggg tgcatttctc ggaaaggtct gcgttggtac agtgcyssg vyakgsavdr 2940
 112 rgttacgcat gtaccaaaga aggtttcttc atagaaymtt dtabrtgstt 2990
 113 <210> SEQ ID NO 3
 114 <211> LENGTH: 236
 115 <212> TYPE: PRT
 116 <213> ORGANISM: Corynebacterium glutamicum
 117 <400> SEQUENCE: 3
 118 Met Val Ile Met Glu Ile Phe Ile Thr Gly Leu Leu Leu Gly Ala Ser
 119 1 5 10 15
 120 Leu Leu Leu Ser Ile Gly Pro Gln Ala Val Leu Val Ile Lys Gln Gly
 121 20 25 30
 122 Ile Lys Arg Glu Gly Leu Ile Ala Val Leu Leu Val Cys Leu Ile Ser
 123 35 40 45
 124 Asp Val Phe Leu Phe Ile Ala Gly Thr Leu Gly Val Asp Leu Leu Ser
 125 50 55 60
 126 Ala Ala Ala Pro Ile Val Leu Asp Ile Met Arg Trp Gly Gly Ile Ala
 127 65 70 75 80
 128 Tyr Leu Leu Trp Phe Ala Val Met Ala Ala Lys Asp Ala Met Thr Asn
 129 85 90 95
 130 Lys Val Glu Ala Pro Gln Ile Ile Glu Glu Thr Glu Pro Thr Val Pro
 131 100 105 110
 132 Asp Asp Thr Pro Leu Gly Gly Ser Ala Val Ala Thr Asp Thr Arg Ala
 133 115 120 125
 134 Arg Val Arg Val Glu Val Ser Val Asp Lys Gln Arg Val Trp Val Lys
 135 130 135 140
 136 Pro Met Leu Met Ala Ile Val Leu Thr Trp Leu Ala Pro Ala Ala Tyr
 137 145 150 155 160
 138 Leu Asp Ala Phe Val Phe Ile Gly Gly Val Gly Ala Gln Tyr Gly Asp
 139 165 170 175
 140 Thr Gly Arg Trp Ile Phe Ala Ala Gly Ala Phe Ala Ala Ser Leu Ile
 141 180 185 190
 142 Trp Phe Pro Leu Val Gly Phe Gly Ala Ala Ala Leu Ser Arg Pro Leu
 143 195 200 205
 144 Ser Ser Pro Lys Val Trp Arg Trp Ile Asn Val Val Val Ala Val Val

PAGE: 4

RAW SEQUENCE LISTING
PATENT APPLICATION US/09/105,117FDATE: 11/04/1999
TIME: 15:34:10

Input Set: I105117F.RAW

145	210	215	220
146	Met Thr Ala Leu Ala Ile Lys Leu Met Leu Met Gly		
147	225	230	235

Input Set: I105117F.RAW

Line	Error/Warning	Original Text
73	W "N" or "Xaa" used: Feature required	gtgccctaat cgaagtgcc aatggcgagg tgvvcgav
76	W "N" or "Xaa" used: Feature required	gwsavnvwts gcttagacgc aactaccgct accaattg
77	W "N" or "Xaa" used: Feature required	tatcaacgcg sdanatargs aaaatcaaag acgaacgt
83	W "N" or "Xaa" used: Feature required	tsgdstdnmr bsatattaaa ccatgttaag aaccaatc
86	W "N" or "Xaa" used: Feature required	gcgcgaagga ctcatcgcg ttctnvvkkgk rgavtctc
88	W "N" or "Xaa" used: Feature required	gccgatcgtg ctcgatatta tgcgctgggg tggcatcg
90	W "N" or "Xaa" used: Feature required	vmaakdamtn kvagatcatt gaagaaacag aaccaacc
92	W "N" or "Xaa" used: Feature required	gagcgtcgat aagcagcggg tttgatdtrn rrvrvsvd
93	W "N" or "Xaa" used: Feature required	ggcaatcgtg ctgacctggt tgaacccgaa tgcgtatt
97	W "N" or "Xaa" used: Feature required	gctggatcaa cgtcgtcgtg gcasrsskvw rwnvvvat
101	W "N" or "Xaa" used: Feature required	ngadhsdaga ggttgagccg cagtcttttg aggttcaa
102	W "N" or "Xaa" used: Feature required	aggtcgacad snnsdsndga gttgactgct tcgtgggt
105	W "N" or "Xaa" used: Feature required	tggatatagtt ataacaagt caagttgtac gggagtct
108	W "N" or "Xaa" used: Feature required	tcgactgacg ttgasavgn naasgttcaa gagtggca
109	W "N" or "Xaa" used: Feature required	tgctaattac taccttatcg aaccngddgv wrnsysga